UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

MEMORANDUM

VIA LAN

DATE: May 27, 1997

SUBJECT: L.E Carpenter and Company Site, Wharton, NJ
Review of the *Remedial Action Plan for Phase I - Free Product Recovery*

FROM: Dean R. Maraldo, Hydrogeologist
Technical Support Team

TO: Stephen Cipot, Project Manager
ERRD/SPB

In response to your request, I have reviewed the document listed above. If you have any questions concerning these comments, please feel free to call me at X-3260.

GENERAL COMMENTS:

According to the work plan, the free product plume is relatively stable and is present in thicknesses of up to three feet. However, no discussions or calculations are provided to support the conclusions. If the reported free product thicknesses are based on bore product thickness only, this could result in significant errors in estimating drainable product volume. The apparent free product thickness, indicated by well bore product thickness, is typically much greater than the actual free product thickness in the surrounding soil. If the reported free product thicknesses are based on adjusted measurements please provide any relevant data and equations used to predict actual product thickness.

The PRP should consider the installation of extraction trenches in the free product plume areas to enhance recovery and minimize the amount of water extracted. Due to the shallow water table, extraction trenches should be seriously considered from both a productivity and cost-effectiveness standpoint as each extraction trench could replace several of the proposed vertical extraction wells. Limiting factors, such as large water table fluctuations and the presence of underground utilities should be investigated.

Due to the presence of potential PVC solvents (toluene, xylene, methyl ethyl ketone, etc.), in high concentrations in the ground water and in free product phase, PVC should not be considered as a well casing material. Solvation occurs in the presence of these solvents and chemical degradation of the PVC casing can be expected. The PRP should use stainless steel well casings to avoid potential well casing degradation problems.

SPECIFIC COMMENTS

Page 4, Section 2.4 Soil Cuttings, Well Development Water, and Decontamination Water Disposal: "Due to the presence of free product, decontaminating the drilling equipment between wells is not necessary and would add little to no benefit."

This statement is incorrect. Contaminated material that adheres to the surface of drilling equipment may be transferred to uncontaminated surface and subsurface soil above the free-product contaminated soil. Drilling equipment must be decontaminated between boreholes to prevent cross-contamination.

Page 11, Section 3.2 Free-Product Removal Reporting

Free-product thickness contour maps should include predicted actual free product thickness data. Apparent (well bore product) thickness data and predictive methods and/or formulas should be included and discussed in the report.

cc: Vince Pitruzzello, PSB